

## **Laser-related spectroscopy of KY<sub>3</sub>-xYbxF<sub>10</sub>:Ce<sup>3+</sup> crystals**

Abdulsabirov R., Korableva S., Marisov M., Naumov A., Nizamutdinov A., Semashko V.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### **Abstract**

Here spectral-kinetic properties of Ce<sup>3+</sup> ions and UV pumping induced color centers in KY<sub>3</sub>F<sub>10</sub> (KYF) crystals are reported and discussed. The efficiency of crystal-chemical approach of UV pumping induced solarization processes inhibition in these crystals was shown. Laser oscillation was achieved on the Ce:KYF crystals which were considered earlier as unpromising as active medium due to its photochemical instability.

<http://dx.doi.org/10.1117/12.660801>

---

### **Keywords**

Laser crystals, Laser spectroscopy, Solid state-lasers